Patent claims

1. A method for data transmission in a mobile radio system, in which

- data (d) are transmitted between a first base station (BS1) and at least one mobile station (MS) on the basis of a first transmission method,

- at least during particular transmission phases, interruption phases (2) are inserted in which the mobile station (MS) interrupts the transmission of data (d) and in which the mobile station (MS) is switched to the reception of data packets (dp) sent by a second base station (BS2) on the basis of a second transmission method, where the second base station (BS2) operates on the basis of the GSM standard or of a standard derived therefrom which is likewise based on a synchronization frame structure having a period of 51 frames, and

- interruption phases having an effective total duration of a maximum of 9 or of a maximum of 10 observation frames are inserted.

2. The method as claimed in claim 1, in which

- a period of 52 GSM frames lies between the start of a first interruption phase and a second interruption phase.

4. The method as claimed in claim 1, in which

- a period of 26 GSM frames lies between the start of a first interruption phase and a second interruption phase.

5. The method as claimed in claim 1, in which

- a period of n1 GSM frames lies between the start of a first interruption phase and a second interruption phase, and

- a period of n2 GSM frames lies between the start of a second interruption phase and a third interruption phase.

6. The method as claimed in claim 5, in which

- a period of 6 GSM frames lies between the start of a first interruption phase and a second interruption phase, and

- a period of 46 GSM frames lies between the start of a second interruption phase and a third interruption phase.

7. The method as claimed in claim 5, in which

- a period of 16 GSM frames lies between the start of a first interruption phase and a second interruption phase, and

- a period of 36 GSM frames lies between the start of a second interruption phase and a third interruption phase.

8. The method as claimed in one of the preceding claims, in which,

after reception of a characteristic data packet and/or of a data packet which is to be detected from a second base station (BS2), the mobile station (MS) transmits information for influencing the insertion of further interruption phases to the first base station (BS1).

9. A mobile station (MS) having

- means (EE, SE) for transmitting data from and to a first base station (BS1) on the basis of a first transmission method,

- means (STE) for inserting pauses at least during particular transmission phases in which the transmission of data is interrupted,

- means (STE) for switching to the reception of data packets sent by a second base station (BS2) on the basis of a

second transmission method, where the second base station (BS2) operates on the basis of the GSM standard or of a standard derived therefrom which is likewise based on a synchronization frame structure having a period of 51 frames, where interruption phases having an effective total duration of a maximum of 9 or a maximum of 10 observation frames are inserted.

10. The mobile station (MS) as claimed in claim 9, in which
a period of 52 GSM frames lies between the start of a first interruption phase and a second interruption phase.

11. The mobile station (MS) as claimed in claim 9, in which
a period of 52 GSM frames lies between the start of a first interruption phase and a second interruption phase.

12. The mobile station (MS) as claimed in claim 9, in which

- a period of n1 GSM frames lies between the start of a first interruption phase and a second interruption phase, and
- a period of n2 GSM frames lies between the start of a second interruption phase and a third interruption phase.

13. The mobile station (MS) as claimed in one of claims 9 to 12, having

- means for ascertaining a reception result for the data packets received from a second base station, and
- means (SE) for sending to the first base station information which influences the insertion of further interruption phases.

14. A base station (BS1) having

- means for transmitting data from and to a mobile station (MS),

- means for inserting interruption phases at least during particular transmission phases (2) in which the mobile station (MS) interrupts the transmission of data (d) and in which the mobile station (MS) is switched to the reception of data packets (dp) sent by a second base station (BS2) on the basis of a second transmission method, where the second base station (BS2) operates on the basis of the GSM standard or of a standard derived therefrom which is likewise based on a synchronization frame structure having a period of 51 frames, and interruption phases having an effective total duration of a maximum of 9 or a maximum of 10 observation frames are inserted.

15. The base station (BS1) as claimed in claim 14, in which

- a period of 52 GSM frames lies between the start of a first interruption phase and a second interruption phase.

16. The base station (BS1) as claimed in claim 14, in which
a period of 26 GSM frames lies between the start of a first interruption phase and a second interruption phase.

17. The base station (BS1) as claimed in claim 14, in which

- a period of n1 GSM frames lies between the start of a first interruption phase and a second interruption phase, and

- a period of n2 GSM frames lies between the start of a second interruption phase and a third interruption phase.

18. The base station (BS1) as claimed in one of claims 14 to 17, having

- means for receiving information which influences the insertion of interruption phases, and

- means for influencing the insertion of interruption phases on the basis of the reception result.

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